

明志科技大學 工業工程與管理系碩士班115學年度入學 課程表

Ming Chi University of Technology, Department of Industrial Engineering and Management, Courses list for Master of Science Program

115.4.14校課程會議通過

115.3.18院課程會議通過

115.3.11系課程會議通過

科目類別	組別	科目名稱	上學期		下學期		備註
			學分	時數	學分	時數	
必修 Required	不分組 NO Grouping	台塑企業管理機能研討 Formosa Plastics Group Management System	1	3			
		小計	1	3	0	0	
核心選修 Core optional	資訊科技與數據科學 (三選一) Information Technology & Introduction to Data Science (Choose one of three)	企業流程分析與管理 Business Process Analysis and Management	3	3			
		演算法設計與分析 Design and Analysis of Algorithms			3	3	In English if necessary
		深度學習與應用 Deep Learning and Applications			3	3	In English if necessary
	作業管理 (三選一) Operations Management (Choose one of three)	高等生產管理 Advanced Production and Inventory Control	3	3			In English if necessary
		數學規劃 Mathematical Programming	3	3			In English if necessary
		高等品質管理 Advanced Quality Management			3	3	In English if necessary
	人因服務 (二選一) Service Human Factors (Choose one of two)	高等人因工程 Advanced Human Factors Engineering	3	3			In English if necessary
		高等工作學 Advanced Work Study	3	3			In English if necessary
	小計	15	15	9	9		
資訊科技與數據科學 Information Technology & Introduction to Data Science	電子化企業管理 E-business management	3	3				
	機器學習與應用 Machine Learning and Applications	3	3				
	數據科學程式設計專論 Topics in Data Science Programming	3	3			In English if necessary	
	數位學生:概念與應用 Digital twins: Concepts and Applications	3	3			In English if necessary	
	人工智慧實務案例分析與實作 Artificial Intelligence: Practical Applications and Case Studies	3	3			In English if necessary	
	資訊管理 Management Information Systems			3	3		
	企業模型建構與分析 Enterprise Modeling and Analysis			3	3		
	多代理人應用 Application of Multi-Agent Systems			3	3		
	商業智慧 Business Intelligence			3	3		
	小計	15	15	12	12		
作業管理 Operations Management	模擬應用 Applied Simulation	3	3			In English if necessary	
	實驗設計 Design of Experiment	3	3			In English if necessary	
	全球運籌管理 Global Operation Management			3	3	In English if necessary	
	精實生產理論與實務 Theory and Practice of Lean Production			3	3		
	供應鏈模式與管理 Modelling and Managing the Supply Chain			3	3	In English if necessary	
	柔性運算 Soft Computing			3	3	In English if necessary	
	隨機模式作業研究 Stochastic Operations Research			3	3	In English if necessary	
	多目標決策分析 Multiobjective Decision Analysis			3	3		
小計	6	6	18	18			
人因服務 Service Human Factors	認知人因工程 Cognitive Ergonomics			3	3	In English if necessary	
	人機系統專論 Topics in Human-Machine Systems			3	3	In English if necessary	
	人因研究方法 Human Factor Method			3	3	In English if necessary	
	現場人因工程 Ergonomics: Engineering Controls and Interventions	3	3			In English if necessary	
	應用人因工程 Applied Ergonomics	3	3			In English if necessary	
小計	6	6	9	9			
整合課程 Integration Course	研究方法與論文寫作 Research seminars	3	3			In English if necessary	
	企業資源規劃專論 Topics in Enterprise Resource Planning	3	3				
	永續產品設計 Design of Sustainable	3	3				
	專案管理專論 Topics in Project Management	3	3				
	可靠度分析 Reliability Analysis	3	3			In English if necessary	
	顧客關係管理 Customer Relationship Management	3	3				
	決策與風險管理 Decision and Risk Management	3	3				
	創新服務與研發管理 Service Design Thinking	3	3				
	作業研究應用 Operations Research Applications			3	3	In English if necessary	
	服務品質研究 Service Quality Researches			3	3	In English if necessary	
資料探勘 Data Mining			3	3			
小計	24	24	9	9			

說明

- 畢業學分下限為 32 學分（不含論文 6 學分），每學期修課上限為 16 學分，開課人數最低為 5 人。
(At least 32 credits are required for graduation (6 credits of Thesis are not included), Maximum 16 credits can be registered for each semester and at least 5 students should enroll in the class.)
- 修課包含必修、核心選修至少 9 學分且每組最低 3 學分、專業選修(含核心選修)至少 18 學分。
(Students have to take required courses, at least 9 credits of core optional courses (at least 3 credits in each group), and at least 18 credits of professional optional courses.)
- 跨所修課至多承認 6 學分。
(Students are allowed to take at most 6 credits from other departments.)
- 外籍學生經指導教授同意及系務會議審議通過後，得以本系選修取代必修與核心選修課程，但以 2 門課為限。
(International students can substituted two professional elective courses for a core elective course and a required course with the approval of his/her advisor and departmental meeting.)
- 學生畢業的學分數需有至少 1/2 以上的學分為全英授課的課程
(Students are required to take all-English speaking courses for at least half of his/her graduation credits)